

FLOATATION SYSTEM INCLUDING LIFE RAFT

FIELD OF THE INVENTION

The present invention is directed to emergency floatation devices, in general, and more particularly to emergency floatation devices used during and after emergency landings.

BACKGROUND OF THE INVENTION

The use of floatation devices for buoyantly supporting an aircraft on a body of water has been prevalent for many years. Part-time and full-time fixed floatation systems have been in widespread use for many years. Some aircraft, especially helicopters, are equipped with both inflatable floatation bags and an inflatable life raft. Typically, deflated floatation bags are fixedly attached to the helicopter landing skids and packed tightly within flexible fabric covers. These floatation bags are inflated in order to support the helicopter when ditching or landing in water is anticipated. On the other hand, inflatable emergency rafts are conventionally stored inside the helicopter fuselage, which is disadvantageous for several reasons.

One disadvantage of storing the inflatable raft inside the aircraft is the amount of space that must be allocated to stow the raft. Inflatable rafts of this sort commonly take up more than six cubic feet of space when deflated. Since six cubic feet is the approximate equivalent of two extra passengers, trips to and from an offshore platform, for example, are far less efficient when an inflatable life raft is stowed within the aircraft fuselage. A further disadvantage of storing the inflatable raft inside the aircraft is that the raft must be manually expelled from the aircraft before being inflated, which wastes precious time and may be more difficult if the aircraft is damaged or the passengers are injured. Yet another disadvantage is that some on-board raft systems require significant modification of the aircraft fuselage, (e.g., additional compartment and door) which is very costly.

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